

Claims

1. An agent for protecting cardiac damage, wherein the agent contains an effective amount of at least one protease inhibitor and is administered intravenously or orally.

2. The agent for protecting cardiac damage according to Claim 1, wherein the protease inhibitor is a serine protease inhibitor.

3. The agent for protecting cardiac damage according to Claim 2, wherein the serine protease inhibitor is a chymotrypsin-like serine protease inhibitor.

4. The agent for protecting cardiac damage according to Claim 3, wherein the chymotrypsin-like serine protease inhibitor is a chymase inhibitor.

5. The agent for protecting cardiac damage according to Claim 4, wherein the chymase inhibitor is a peptide derivative of aryl diester of alpha-aminoalkylphosphonic acid.

6. The agent for protecting cardiac damage according to Claim 4, wherein the chymase inhibitor is Suc-Val-Pro-Phe^P(OPh)₂.

7. The agent for protecting cardiac damage according to Claim 4, wherein the chymase inhibitor is an enriched preparation of enantiomer Suc-Val-Pro-L-Phe^P(OPh)₂ of Suc-Val-Pro-Phe^P(OPh)₂.

8. The agent for protecting cardiac damage according to Claim 7, wherein the Suc-Val-Pro-L-Phe^P(OPh)₂ comprises greater than .95% by weight of the total Suc-Val-Pro-Phe^P(OPh)₂ in the enriched preparation of the enantiomer.

9. The agent for protecting cardiac damage according to any one of Claims 1-8, wherein the protease inhibitor is bound to a transmitter for maintaining an effective local concentration of the protease inhibitor in the relevant site and then administered, the transmitter being a carrier having a high molecular weight selected from the group consisting of hyaluronic acid, hydrogel, carboxymethylcellulose, dextran, cyclodextran and a composition of compounds thereof.

10. An agent mixture for protecting cardiac damage, comprising the protease inhibitor according to any one of Claims 1-9 and a pharmaceutically acceptable diluent solution or excipient.

11. A method for improving arrhythmia, cardiac desmoplasia and / or heart-failure, wherein the agent mixture for protecting cardiac damage according to Claim 10 is administered to a vertebrate subject in a case where the arrhythmia, cardiac desmoplasia, and heart-failure are likely to accompany with hypertension, hypercardia, myocardial infarction, arteriosclerosis, diabetic and

non-diabetic renal diseases, re-stenosis posterior to PTCA.

12. A use of the agent mixture for protecting cardiac damage according to Claim 10, wherein the use comprises making a medicine which is applied against arrhythmia, cardiac desmoplasia and / or heart-failure in a case where the arrhythmia, cardiac desmoplasia, and heart-failure are likely to accompany with hypertension, hypercardia, myocardial infarction, arteriosclerosis, diabetic and non-diabetic renal diseases, and re-stenosis posterior to PTCA.

13. A use of the agent mixture for protecting cardiac damage according to Claim 10, wherein the use comprises using as a agent for improving arrhythmia, cardiac desmoplasia and / or heart-failure in a case where the arrhythmia, cardiac desmoplasia, and heart-failure are likely to accompany with hypertension, hypercardia, myocardial infarction, arteriosclerosis, diabetic and non-diabetic renal diseases, and re-stenosis posterior to PTCA.